CLAIMS

What is claimed is:

1. A three dimensional arrangement of chemical elements, comprising:

a continuous unidirectional periodic spiral of objects, the spiral having a substantially elliptical shape, and each object representing a different chemical element;

the objects positioned so that chemical elements in a Period are in a single spiral loop, and each successive Period has a larger circumference than a preceding Period; and

the objects positioned so that chemical elements in a chemical group are in substantially the same vertical plane.

2. The three dimensional arrangement of claim 1, wherein the objects individually have a shape selected from the group consisting of plate-like, sphere, cube, cylindrical, oval, pyramid, polyhedron having seven or more sides.

3. The three dimensional arrangement of claim 1, wherein the objects represent chemical elements from H to about Mt.

4. The three dimensional arrangement of claim 1, wherein the objects are color coded with one of four different colors to represent one of four major groups of elements, the four major groups comprising s-block elements, p-block elements, d-block elements, and f-block elements.

5. The three dimensional arrangement of claim 1, wherein the objects have relative physical dimensions that substantially correspond to relative physical dimensions of actual atomic radii of the chemical elements.

6. The three dimensional arrangement of claim 1, wherein the objects are positioned within seven Periods.

7. The three dimensional arrangement of claim 1, wherein the objects are positioned within seven Periods, and the single spiral loop of the sixth Period and the single spiral loop of the seventh Period each comprise a reverse.

8. The three dimensional arrangement of claim 1, wherein the objects are positioned within seven Periods, and the single spiral loop of the sixth Period and the single spiral loop of the seventh Period each comprise two reverses.

9. The three dimensional arrangement of claim 1, wherein the objects are color coded with one of four different colors to represent one of alkali metals, alkaline earth metals, transition metals, rare earth metals, non-metals, and noble gases.

10. A learning kit, comprising:

a storable and assemblable three dimensional arrangement of chemical elements comprising

a continuous unidirectional periodic spiral of objects, the spiral having a substantially elliptical shape, and each object representing a different chemical element;

the objects positioned so that chemical elements in a Period are in a single spiral loop, and each successive Period has a larger circumference than a preceding Period; and

the objects positioned so that chemical elements in a chemical group are in substantially the same vertical plane; and

a carrying case to store the three dimensional arrangement of chemical elements.

11. The three dimensional arrangement of claim 10, the storable and detachable three dimensional arrangement of chemical elements further comprising an audio source for providing audio information regarding the chemical elements.

12. The three dimensional arrangement of claim 10, wherein each of the objects illuminate in response to suitable stimuli.

13. The three dimensional arrangement of claim 10, wherein the chemical group comprises Group 1, Group 2, Group 3, Group 4, Group 5, Group 6, Group 7, Group 8, Group 9, Group 10, Group 11, Group 12, Group 13, Group 14, Group 15, Group 16, Group 17, and Group 18.

14. The three dimensional arrangement of claim 10, wherein the objects represent chemical elements from H to about Uuo.

15. The three dimensional arrangement of claim 10, wherein the objects are color coded with one of four different colors to represent one of four major groups of elements, the four major groups comprising s-block elements, p-block elements, d-block elements, and f-block elements.

16. The three dimensional arrangement of claim 10, wherein the objects have relative physical dimensions that substantially correspond to relative physical dimensions of actual atomic radii of the chemical elements.

17. The three dimensional arrangement of claim 10, wherein the objects are positioned within seven Periods.

18. The three dimensional arrangement of claim 10, the objects are

color coded with one of four different colors to represent one of alkali metals, alkaline earth metals, transition metals, rare earth metals, non-metals, and noble gases.

19. A computer implemented method of generating a three dimensional arrangement of chemical elements, comprising:

a continuous unidirectional periodic spiral of objects, the spiral having a substantially elliptical shape, and each object representing a different chemical element;

the objects positioned so that chemical elements in a Period are in a single spiral loop, and each successive Period has a larger circumference than a preceding Period; and

the objects positioned so that chemical elements in a chemical group are in substantially the same vertical plane.

20. The method of claim 19, wherein the method is performed by execution of a computer program by a processor from a computer-readable medium.